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## PATENT ABSTRACTS OF JAPAN

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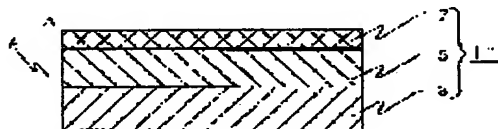
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## (54) FILTER MEDIUM FOR AIR CLEANER

## (57)Abstract:

**PROBLEM TO BE SOLVED:** To increase the amt. of dust of a relatively small particle diameter such as carbon dust held by a filter medium for an air cleaner consisting of plural fiber layers including at least inner and outer layers laminated and united to one body by forming the inner layer of the filter medium from staple fibers of a specified fiber diameter and long fibers of a specified fiber diameter.

**SOLUTION:** The filter medium 11 suitable for use in the air cleaner of an automobile consists of an outer layer 13, a middle layer 15 and an inner layer 17 from the upper stream side along the direction A of an air flow. The outer layer 13 comprises a nonwoven fabric suitable for collecting sand dust of a relatively large particle diameter. The area density of the inner layer 17 is preferably adjusted to 50-200 g/m<sup>2</sup> so as to ensure a large amt. of dust held and to avoid excessive pressure drop in the filter medium 11. The inner layer 17 is formed by blowing and depositing opened staple fibers of 15-68  $\mu$ m fiber diameter carried by an air flow on long fibers of 0.5-10  $\mu$ m fiber diameter and heat-treating the resultant fiber web with a heating means.



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